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Hajdu, I., Moldoveanu, Z., Cooper, M. D., and Mestecky, J. Ultrastructural studies of human lymphoid cells: μ and J chain expression as a function of B cell differentiation. 1993

Hamaoki, M. *See* Hirose, Nagasawa, Sekikawa, Hamaoki, Ishida, Sato, and Shirai.

Hamill, A. L. *See* Pawlowski, Kaplan, Hamill, Cohn, and Scott.

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Hannum, C. *See* Marrack, Shimonkevitz, Hannum, Haskins, and Kappler.

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Helin, H., and Edgington, T. S. Allogeneic induction of the human T cell-instructed monocyte procoagulant response is rapid and is elicited by HLA-

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Higuchi, K., Matsumura, A., Hashimoto, K., Honma, A., Takeshita, S., Hosokawa, M., Yasuhira, K., and Takeda, T. Isolation and characterization of senile amyloid-related antigenic substance (SAS_{SAM}) from mouse serum: apo SAS_{SAM} is a low molecular weight apoprotein of high density lipoprotein. 1600

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Houghton, A. N., Brooks, H., Cote, R. J., Taormina, M. C., Oettgen, H. F., and Old, L. J. Detection of cell surface and intracellular antigens by human monoclonal antibodies. Hybrid cell lines derived from lymphocytes of patients with malignant melanoma. 53

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—, **Matis, L., Malek, T. R., Shevach, E., Kell, W., Cohen, D., Nakanishi, K., Johnson, B., and Paul, W. E.** Interleukin 2 induces antigen-reactive T cell lines to secrete BCGF-1. 2024

Hoxie, J. *See* Perussia, Dayton, Fanning, Thiagarajan, Hoxie, and Trinchieri.

Hume, D. A., Robinson, A. P., MacPherson, G. G., and Gordon, S. The mononuclear phagocyte system of the mouse defined by immunohistochemical localization of antigen F4/80: relationship between macrophages, Langerhans cells, reticular cells, and dendritic cells in lymphoid and hematopoietic organs. 1522

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Kannapell, C. C. *See* Karr, Kannapell, Zangara, Goyert, Silver, and Schwartz.

Kaplan, G. *See* Nogueira, Kaplan, Levy, Sarno, Kushner, Granelli-Piperno, Vieira, Colomer-Gould, Levis, Steinman, Yip, and Cohn.

—, *See* Pawlowski, Kaplan, Hamill, Cohn, and Scott.

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—, **Sorensen, C. M., and Pierce, C. W.** Antigen-specific suppressor T cell interactions. II. Characterization of two different types of suppressor T cell factors specific for L-glutamic acid^{50}-L-tyrosine^{50} (GT) and L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10} (GAT). 1962

Kappler, J. *See* Kronenberg, Kraig, Siu, Kapp, Kappler, Marrack, Pierce, and Hood.

—, *See* Marrack, Endres, Shimonkevitz, Zlotnik, Dialynas, Fitch, and Kappler.

—, *See* Marrack, Shimonkevitz, Hannum, Haskins, and Kappler.

—, *See* Shimonkevitz, Kappler, Marrack, and Grey.

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—, *See* Sunshine, Gold, Wortis, Marrack, and Kappler.

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—, **Kronenberg, M., Kapp, J. A., Pierce, C. W., Abruzzini, A. F., Sorensen, C. M., Samelson, L. E., Schwartz, R. H., and Hood, L. E.** T and B cells that recognize the same antigen do not transcribe similar heavy chain variable region gene segments. 192

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—, *See* Sunshine, Gold, Wortis, Marrack, and Kappler.
—, *See* Swain, Howard, Kappler, Marrack, Watson, Booth, Wetzel, and Dutton.
—, **Endres, R., Shimonkevitz, R., Zlotnik, A., Dialynas, D., Fitch, F., and Kappler, J.** The major histocompatibility complex-restricted antigen receptor on T cells. II. Role of the L3T4 product. 1077
—, **Shimonkevitz, R., Hannum, C., Haskins, K., and Kappler, J.** The major histocompatibility complex-restricted antigen receptor on T cells. IV. An antiidiotypic antibody predicts both antigen and I-specificity. 1635
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Mond, J. J., Norton, G., Paul, W. E., Scher, I., Finkelman, F. D., House, S., Schaefer, M., Mongini, P. K. A., Hansen, C., and Bona, C. Establishment of an inbred line of mice that express a synergistic immune defect precluding in vitro responses to type 1 and type 2 antigens, B cell mitogens, and a number of T cell-derived helper factors. 1401

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—, Kaplan, G., Levy, E., Sarno, E. N., Kushner, P., Granelli-Piperno, A., Vieira, L., Colomer-Gould, V., Levis, W., Steinman, R., Yip, Y. K., and Cohn, Z. A. Defective γ-IFN production in leprosy: reversal with antigen and interleukin 2. 2165

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VOLUME 158

1983

PUBLISHED MONTHLY BY

THE ROCKEFELLER UNIVERSITY PRESS

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1600 KEIICHI HIGUCHI, ATSUKO MATSUMURA, KENJI HASHIMOTO, ATSUKO HONMA, SHUJI TAKESHITA, MASANORI HOSOKAWA, KIMIO YASUHIRA, and TOSHIO TAKEDA. Isolation and characterization of senile amyloid-related antigenic substance (SAS_{SAM}) from mouse serum. Apo SAS_{SAM} is a low molecular weight apoprotein of high density lipoprotein

1615 CLIVE A. SLAUGHTER and J. DONALD CAPRA. Amino acid sequence diversity within the family of antibodies bearing the major antiarsonate cross-reactive idiotype of the A strain mouse

1635 PHILIPPA MARRACK, RICHARD SHIMONKEVITZ, CHARLES HANNUM, KATHRYN HASKINS, and JOHN KAPPLER. The major histocompatibility complex–restricted antigen receptor on T cells. IV. An antiidiotypic antibody predicts both antigen and I-specificity

1647 ROBERT R. FREEMAN and ANTHONY A. HOLDER. Surface antigens of malaria merozoites: a high molecular weight precursor is processed to an 83,000 mol wt form expressed on the surface of *Plasmodium falciparum* merozoites

1654 RHODRI CEREDIG, DENO P. DIALYNAS, FRANK W. FITCH, and H. ROBSON MACDONALD. Precursors of T cell growth factor producing cells in the thymus: ontogeny, frequency, and quantitative recovery in a subpopulation of phenotypically mature thymocytes defined by monoclonal antibody GK-1.5

1672 JOERG REIMANN and RICHARD G. MILLER. Differentiation from precursors in athymic nude mouse bone marrow of unusual spontaneously cytolytic cells showing anti–self-H-2 specificity and bearing T cell markers

1693 JONATHAN E. SILVER and TORGNY N. FREDRICKSON. Susceptibility to Friend helper virus leukemias in CXB recombinant inbred mice

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1713 PETER O'HANLEY, DAVID LARK, STAFFAN NORMARK, STANLEY FALKOW, and GARY K. SCHOOLNIK. Mannose-sensitive and Gal-Gal binding *Escherichia coli* pili from recombinant strains. Chemical, functional, and serological properties

1720 LEO P. DE WAAL, STANLEY G. NATHENSON, and CORNELIS J. M. MELIEF. Direct demonstration that cytotoxic T lymphocytes recognize conformational determinants and not primary amino acid sequences

BRIEF DEFINITIVE REPORTS

1727 JAMES B. DALE, JEROME M. SEYER, and EDWIN H. BEACHEY. Type-specific immunogenicity of a chemically synthesized peptide fragment of type 5 streptococcal M protein

1733 RICHARD L. RILEY, DWANE E. WYLIE, and NORMAN R. KLINMAN. B cell repertoire diversification precedes immunoglobulin receptor expression

1739 MICHAEL BROWNLEE, SANDOR PONGOR, and ANTHONY CERAMI. Covalent attachment of soluble proteins by nonenzymatically glycosylated collagen. Role in the in situ formation of immune complexes

1745 GEOFFREY H. SUNSHINE, DANIEL P. GOLD, HENRY H. WORTIS, PHILIPPA MARRACK, and JOHN W. KAPPLER. Mouse spleen dendritic cells present soluble antigens to antigen-specific T cell hybridomas

1751 DAVID A. JOHNSON and JOHN H. ELDER. Antibody directed to determinants of a Moloney virus derived MCF GP70 recognizes a thymic differentiation antigen

1757 CHANG YI WANG, AYAD AL-KATIB, CARYL L. LANE, BENJAMIN KOZINER, and SHU MAN FU. Induction of HLA-DC/DS (Leu 10) antigen expression by human precursor B cell lines

1763 VÉRONIQUE STASSIN, PIERRE G. COULIE, BARBARA K. BIRSHTEIN, DAVID S. SECHER, and JACQUES VAN SNICK. Determinants recognized by murine rheumatoid factors. Molecular localization using a panel of mouse myeloma variant immunoglobulins

1769 H. A. BOUX, R. L. RAISON, K. Z. WALKER, G. E. HAYDEN, and A. BASTEN. A tumor-associated antigen specific for human *kappa* myeloma cells

1775 MARC LIPINSKI, KARIM BRAHAM, JEAN-MICHEL CAILLAUD, CHRISTIANE CARLU, and THOMAS TURSZ. HNK-1 antibody detects an antigen expressed on neuroectodermal cells

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1785 FRANCISCO SANCHEZ-MADRID, JANICE A. NAGY, ELIZABETH ROBBINS, PAUL SIMON, and TIMOTHY A. SPRINGER. A human leukocyte differentiation antigen family with distinct α-subunits and a common β-subunit: the lymphocyte function–associated antigen(LFA-1), the C3bi complement receptor (OKM1/Mac-1), and the p150,95 molecule

1804 J. S. H. GASTON, A. B. RICKINSON, and M. A. EPSTEIN. Cross-reactivity of self-HLA-restricted Epstein-Barr virus-specific cytotoxic T lymphocytes for allo-HLA determinants

1822 WLODZIMIERZ PTAK, RICHARD K. GERSHON, and PATRICK M. FLOOD. Mechanisms of suppression in the transfer of contact sensitivity: analysis of an I-J$^+$ molecule required for Ly2 suppressor cell activity

1836 LAURENT BAUD, JACQUELINE HAGEGE, JOSÉE SRAER, ERIC RONDEAU, JOELLE PEREZ, and RAYMOND ARDAILLOU. Reactive oxygen production by cultured rat glomerular mesangial cells during phagocytosis is associated with stimulation of lipoxygenase activity

1853 MARGARET BECKWITH and SUSAN RICH. Suppressive mechanisms in alloantigen-induced T cell responses

1868 ELIZABETH K. BIKOFF. Tolerance for self Ig at the level of the Ly1$^+$ T cell

1881 ROSEMARIE H. DEKRUYFF, CAROL CLAYBERGER, and HARVEY CANTOR. Hapten-reactive inducer T cells. II. Evidence that a secreted form of the T cell receptor induces antibody production

1895 DOREEN A. CANTRELL and KENDALL A. SMITH. Transient expression of interleukin 2 receptors: consequences for T cell growth

1912 IZUMI TAKEI, TAKAYUKI SUMIDA, and MASARU TANIGUCHI. Acceptor-suppressor T cell hybridoma with a receptor recognizing antigen-specific suppressor factor

1924 G. E. MARTI, M. C. KUO, S. SHAW, C. C. CHANG, R. DEMARS, J. A. SOGN, J. E. COLIGAN, and T. J. KINDT. A novel HLA-D/DR-like antigen specific for human B lymphoid cells: biochemical evidence for similarity to but nonidentity with known HLA-D/DR antigens

1938 PATRICK M. FLOOD, ADAM LOWY, AKIRA TOMINAGA, BEN CHUE, MARK I. GREENE, and RICHARD K. GERSHON. Igh variable region-restricted T cell interactions: genetic restriction of an antigen-specific suppressor inducer factor is imparted by an I-J$^+$ antigen-nonspecific molecule

1948 NORMAN R. KLINMAN and MARY R. STONE. Role of variable region gene expression and environmental selection in determining the antiphosphorylcholine B cell repertoire

1962 JUDITH A. KAPP, CRAIG M. SORENSEN, and CARL W. PIERCE. Antigen-specific suppressor T cell interactions. II. Characterization of two different types of suppressor T cell factors specific for L-glutamic acid^{50}-L-tyrosine^{50} (GT) and L-glutamic acid^{60}-L-alanine^{30}-L-tyrosine^{10} (GAT)

1979 ANDREA J. SANT, BENJAMIN D. SCHWARTZ, and SUSAN E. CULLEN. Identification of a new component in the murine Ia molecular complex

1993 IVAN HAJDU, ZINA MOLDOVEANU, MAX D. COOPER, and JIRI MESTECKY. Ultrastructural studies of human lymphoid cells: μ and J chain expression as a function of B cell differentiation

2007 NOBUHIRO KAIBARA, TAKAO HOTOKEBUCHI, KENJI TAKAGISHI, and ICHIRO KATSUKI. Paradoxical effects of cyclosporin A on collagen arthritis in rats

2016 SAMUEL D. WRIGHT and SAMUEL C. SILVERSTEIN. Receptors for C3b and C3bi promote phagocytosis but not the release of toxic oxygen from human phagocytes

2024 MAUREEN HOWARD, LOUIS MATIS, THOMAS R. MALEK, ETHAN SHEVACH, WAYNE KELL, DAVID COHEN, KENJI NAKANISHI, and WILLIAM E. PAUL. Interleukin 2 induces antigen-reactive T cell lines to secrete BCGF-1.

2040 KAYO INABA, ANGELA GRANELLI-PIPERNO, and RALPH M. STEINMAN. Dendritic cells induce T lymphocytes to release B cell-stimulating factors by an interleukin 2–dependent mechanism

2058 BICE PERUSSIA, ELAHE TALIEH DAYTON, VIRGINIA FANNING, PERUMAL THIAGARAJAN, JAMES HOXIE, and GIORGIO TRINCHIERI. Immune interferon and leukocyte-conditioned medium induce normal and leukemic myeloid cells to differentiate along the monocytic pathway

2081 R. STOHRER and J. F. KEARNEY. Fine idiotype analysis of B cell precursors in the T-dependent and T-independent responses to $\alpha 1 \rightarrow 3$ dextran in BALB/c mice

2095 ION GRESSER, FILIPPO BELARDELLI, CHANTAL MAURY, MARIE-THERESE MAUNOURY, and MICHAEL G. TOVEY. Injection of mice with antibody to interferon enhances the growth of transplantable murine tumors

2108 MARCUS A. HORWITZ. The Legionnaires' Disease bacterium (*Legionella pneumophila*) inhibits phagosome-lysosome fusion in human monocytes

2127 ALAN G. BARBOUR, OSMAR BARRERA, and RALPH C. JUDD. Structural analysis of the hu variable major proteins of *Borrelia hermsii*

2141 LILLY M. BARBA, PETER R. B. CALDWELL, GORDON W. DOWNIE, GIOVANNI CAMUSSI, JAN R. BRENTJENS, and GIUSEPPE ANDRES. Lung injury mediated by antibodies to endothelium. I. In the rabbit a repeated interaction of heterologous anti-angiotensin–converting enzyme antibodies with alveolar endothelium results in resistance to immune injury through antigenic modulation

BRIEF DEFINITIVE REPORTS

2159 JENIFER TURCO and HERBERT H. WINKLER. Cloned mouse interferon-γ inhibits the growth of *Rickettsia prowazekii* in cultured mouse fibroblasts

2165 N. NOGUEIRA, G. KAPLAN, E. LEVY, E. N. SARNO, P. KUSHNER, A. GRANELLI-PIPERNO, L. VIEIRA, V. COLOMER-GOULD, W. LEVIS, R. STEINMAN, Y. K. YIP, and Z. A. COHN. Defective γ interferon production in leprosy: reversal with antigen and interleukin 2

2171 LINDSEY M. HUTT-FLETCHER, NARAYANASWAMY BALACHANDRAN, and MELISSA HASWELL ELKINS. B cell activation by cytomegalovirus

2177 P. J. JOSE, M. J. FORREST, and T. J. WILLIAMS. Detection of the complement fragment C5a in inflammatory exudates from the rabbit peritoneal cavity using radioimmunoassay

2183 T. JØRGENSEN, B. BOGEN, and K. HANNESTAD. T helper cells recognize an idiotope located on peptide 88-114/117 of the light chain variable domain of an isologous myeloma protein (315)

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